

Panasonic

Operating Instructions Progressive Plasma Television

Model No. **TH-37PA20**
TH-42PA20



Pedestal stand shown above is optional extra.

Please read these instructions before operating your set and retain them for future reference.

English

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new Plasma TV.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the rear cover of these instructions.

Table of Contents

Important Safety Notice	4	Setup Adjustment	24
Safety Precautions	5	Teletext	24
Supplied Accessories	7	Off timer	24
Fitting remote control batteries	7	Ch colour set	24
Battery cautions	7	Child lock	24
Cable Connection	8	Power save	24
Antenna Connection	9	VCR/GAME	24
AV & COMPONENT Connection	10	Colour system	24
Headphones / AV3 terminals Connection	11	Picture Adjustment	25
PC Input terminals Connection	12	Sound Adjustment	27
Power ON / OFF	13	Channel Search	28
AC cord Connection	13	Aspect Controls	29
Power On/Off	13	PC mode Adjustments	30
General Operation	14	Advanced settings	31
Front panel controls and Remote control	14	Adjusting Position and Size	32
Using the On Screen Displays	16	Multi Screen	33
Tuning Channels	18	Multi PIP	33
Auto tuning	18	Teletext	34
Auto tuning (via front panel)	18	Advanced Remote Control Operation	37
Manual tuning	19	Stereo Bilingual Sound Selection	37
Manual tuning (via front panel)	19	VCR / DVD Control	37
Fine tuning	20	Manufacturer setting	38
How to Cancel the Fine tuning	20	Troubleshooting	39
Programme Number Skip	21	For your Guidance	40
How to Cancel the Skip Function	21	Input signal can be displayed	40
Channel Allocation	22	Specifications	41
Owner ID	23		

Important Safety Notice

WARNING

1) To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.

Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

2) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

3) Do not remove the earthing pin on the power plug. This apparatus is equipped with a three pin earthing-type power plug. This plug will only fit an earthing-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.

Do not defeat the purpose of the earthing plug.

CAUTION

This appliance is intended for use in environments which are relatively free of electromagnetic fields.

Using this appliance near sources of strong electromagnetic fields or where electrical noise may overlap with the input signals could cause the picture and sound to wobble or cause interference such as noise to appear.

To avoid the possibility of harm to this appliance, keep it away from sources of strong electromagnetic fields.


To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
- S-VGA is a registered trademark of the Video Electronics Standard Association.

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

CAUTION:

Symptom	Check
After-images appear 	<p>Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV.</p> <p>Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.</p> <p>Note:</p> <p>The permanent after-image on the Plasma TV resulting from fixed image use is not an operating defect and as such is not covered by the Warranty.</p> <p>This product is not designed to display fixed images for extended periods of time.</p>

Safety Precautions

WARNING

Setup

This Plasma TV is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury.

(All of the following accessories are manufactured by Matsushita Electric Industrial Co., Ltd.)

- Pedestal TY-ST42PA20
- Display stand TY-S42PA20W (TH-42PA20), TY-S37PA20W (TH-37PA20)
- Wall-hanging bracket (vertical) TY-WK42PV2W

Always be sure to ask a qualified technician to carry out set-up.

Do not place the Plasma TV on sloped or unstable surfaces.

- The Plasma TV may fall off or tip over.

Do not place any objects on top of the Plasma TV.

- If water is spilt onto the Plasma TV or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma TV, please consult your local Panasonic dealer.

If using the pedestal (optional accessory), leave a space of at least 10 cm at the top, left and right, at least 6 cm at the bottom, and at least 7 cm at the rear. If using some other setting-up method, leave a space of at least 10 cm at the top, bottom, left and right, and at least 1.9 cm at the rear.

Avoid installing this product near electronic equipment that is easy to receive electromagnetic waves.

- It will cause interference in image, sound, etc. In particular, keep video equipment away from this product.

When using the Plasma TV

The Plasma TV is designed to operate on 220 - 240 V AC, 50/60 Hz.

Do not cover the ventilation holes.

- Doing so may cause the Plasma TV to overheat, which can cause fire or damage to the Plasma TV.

Do not stick any foreign objects into the Plasma TV.

- Do not insert any metal or flammable objects into the ventilations holes or drop them onto the Plasma TV, as doing so can cause fire or electric shock.

Do not remove the cover or modify it in any way.

- High voltages which can cause severe electric shocks are present inside the Plasma TV. For any inspection, adjustment and repair work, please contact your local Panasonic dealer.

Securely insert the power cord plug as far as it will go.

- If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they shall not be used.

Do not handle the power cord plug with wet hands.

- Doing so may cause electric shocks.

Do not do anything that may damage the power cable. When disconnecting the power cable, pull on the plug body, not the cable.

- Do not damage the cable, make any modifications to it, place heavy objects on top of it, heat it, place it near any hot objects, twist it, bend it excessively or pull it. To do so may cause fire and electric shock. If the power cable is damaged, have it repaired at your local Panasonic dealer.

If the Plasma TV is not going to be used for any prolonged length of time, unplug the power cord plug from the wall outlet.

Safety Precautions

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odour starts to come out from the Plasma TV, immediately unplug the power cord plug from the wall outlet.

- If you continue to use the Plasma TV in this condition, fire or electric shock could result. After checking that the smoke has stopped, contact your local Panasonic dealer so that the necessary repairs can be made. Repairing the Plasma TV yourself is extremely dangerous, and shall never be done.

If water or foreign objects get inside the Plasma TV, if the Plasma TV is dropped, or if the cabinet becomes damages, disconnect the power cord plug immediately.

- A short circuit may occur, which could cause fire. Contact your local Panasonic dealer for any repairs that need to be made.

CAUTION

When using the Plasma TV

Do not bring your hands, face or objects close to the ventilation holes of the Plasma TV.

- Heated air comes out from the ventilation holes at the top of Plasma TV will be hot. Do not bring your hands or face, or objects which cannot withstand heat, close to this port, otherwise burns or deformation could result.

Be sure to disconnect all cables before moving the Plasma TV.

- If the Plasma TV is moved while some of the cables are still connected, the cables may become damaged, and fire or electric shock could result.

Disconnect the power cord plug from the wall socket as a safety precaution before carrying out any cleaning.

- Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it becoming dusty.

- If dust built up on the power cord plug, the resultant humidity can damage the insulation, which could result in fire. Pull the power cord plug out from the wall outlet and wipe the mains lead with a dry cloth.

This Plasma TV radiates infrared rays, therefore it may affect other infrared communication equipment.

Install your infrared sensor in a place away from direct or reflected light from your Plasma TV.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, wipe with a soft, lint-free cloth which has been soaked in pure water or water to which a small amount of neutral detergent has been added, and then wipe it evenly with a dry cloth of the same type until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects, otherwise the surface may become damaged. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

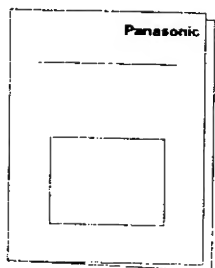
If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma TV.
If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Supplied Accessories

Check the accessories before installations.

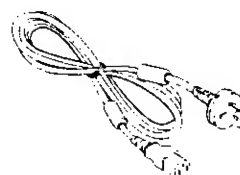
- Operating Instruction book



- Remote Control Transmitter (EUR511281)



- AC cord



- Batteries for the Remote Control Transmitter (2 × R6 (UM3) size)



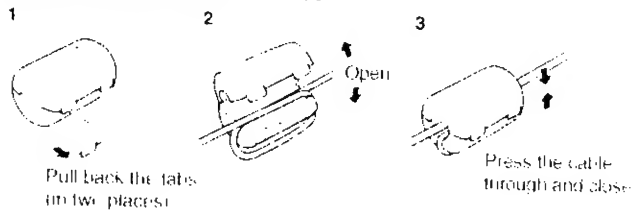
- Ferrite core (small size) × 5



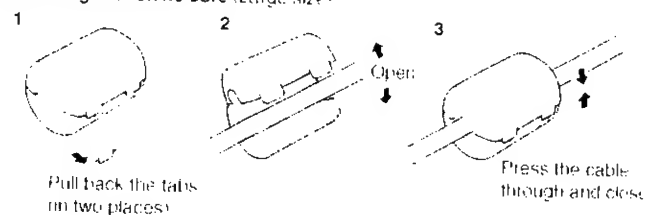
- Ferrite core (large size) × 3



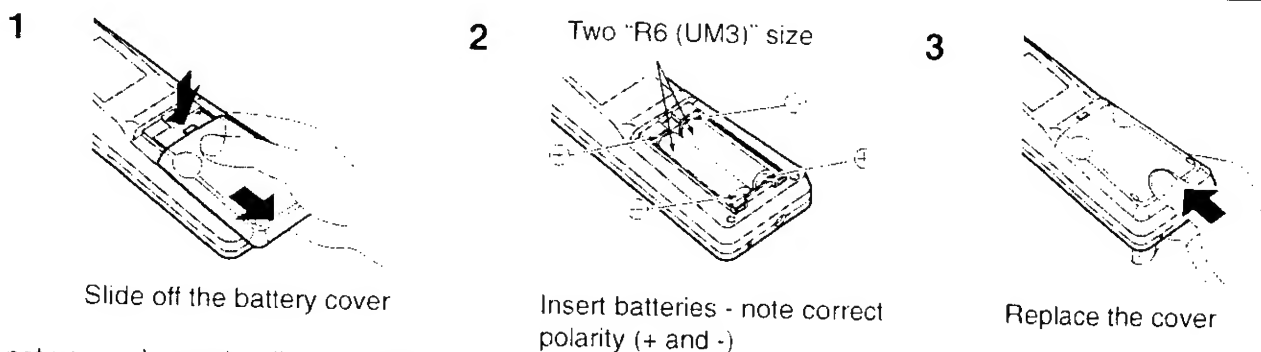
Installing the ferrite core (Small size)



Installing the ferrite core (Large size)



Fitting remote control batteries



Do not use rechargeable (Ni-Cd) batteries.
They are different in shape and performance and may fail to ensure correct operation.

Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

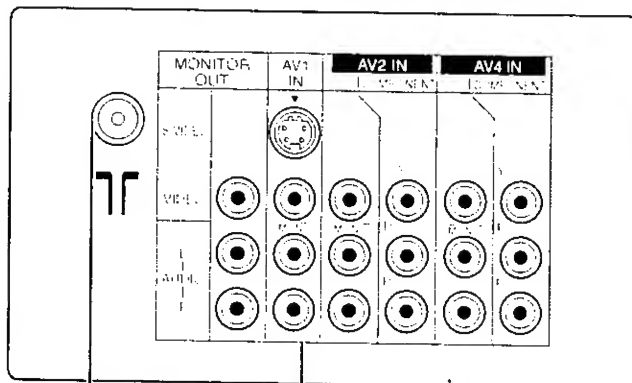
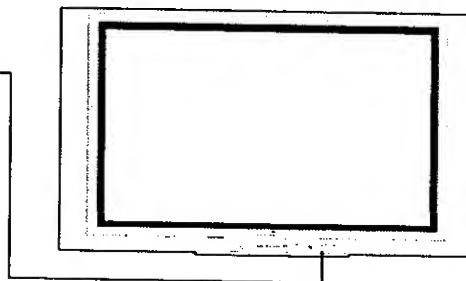
Observe the following precaution:

1. Batteries shall always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
5. Battery replacement is necessary when remote control acts sporadically or stops operating the TV set.

Cable Connection

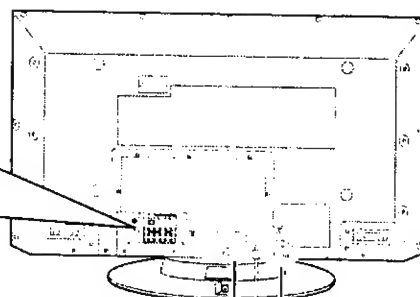
Front AV terminals
(see page 11)

From EXTERNAL monitor terminal
on Computer (see page 12)



ANTENNA IN terminal
(see page 9)

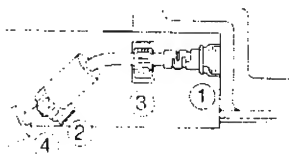
AV & COMPONENT terminals
(see page 10)



– AC cord fixing

1. Connect power plug to the socket of the main body.
2. Fix the left clammer.
3. Fix the right clammer.
4. Install the ferrite core.

Ferrite core
(large size)
(supplied)



How to fix: Fix by pushing in till a clicking sound is heard.



How to release: Pull up while drawing the knob.

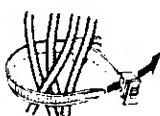


– Cable fixing bands

Secure any excess cables with bands as required.

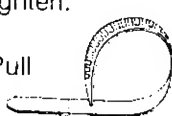
To secure cables connected to Terminals, wrap the cable fixing band around them then pass the pointed end through the locking block, as shown in the figure.

While ensuring there is sufficient slack in cables to minimize stress (especially in the power cord), firmly bind all cables with the supplied fixing band.



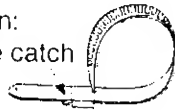
To tighten:

← Pull



To loosen:

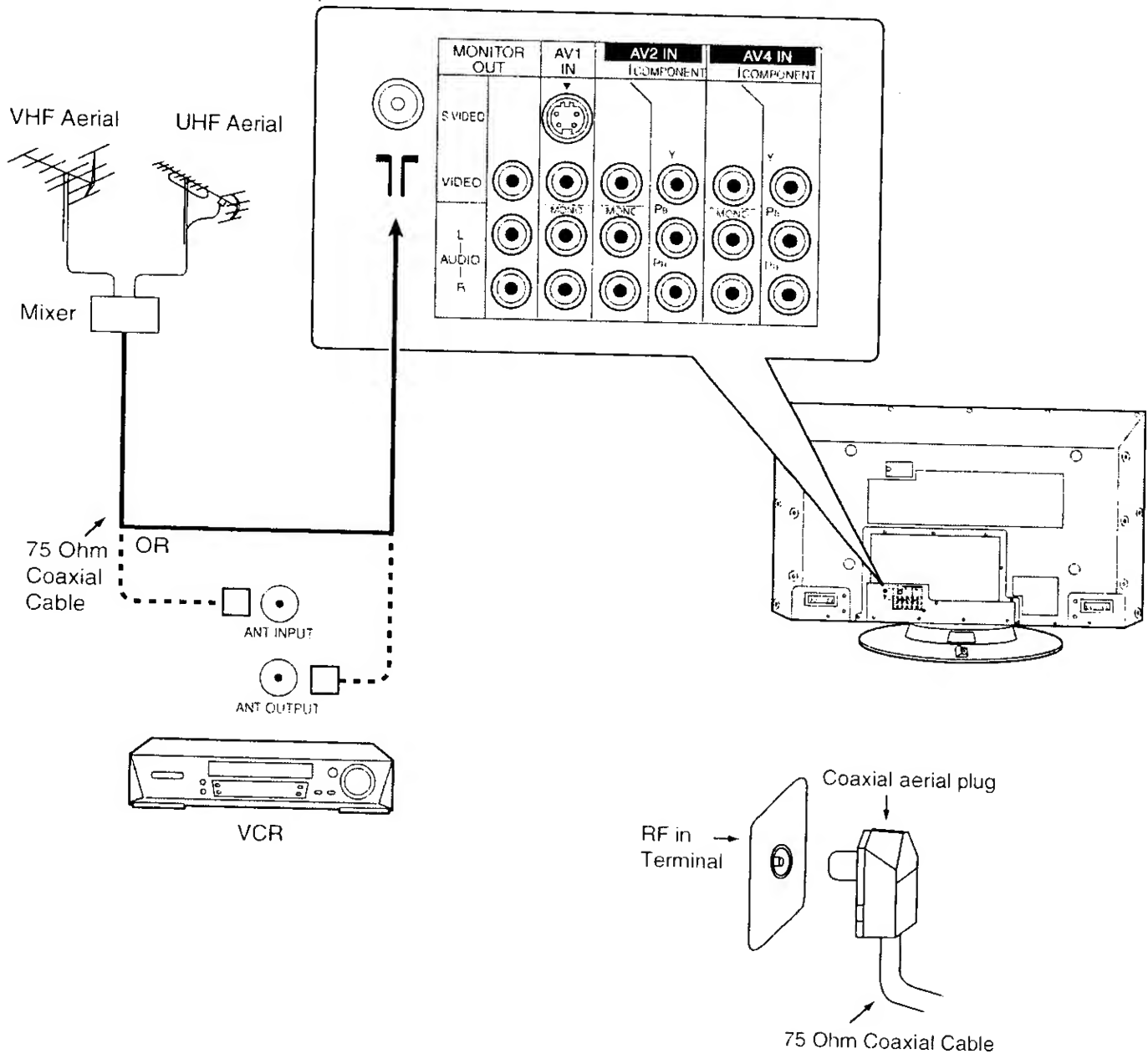
Push the catch



Pull →

Antenna Connection

For proper reception of VHF/UHF channels, an external antenna is required. For best reception, an outdoor antenna is recommended.



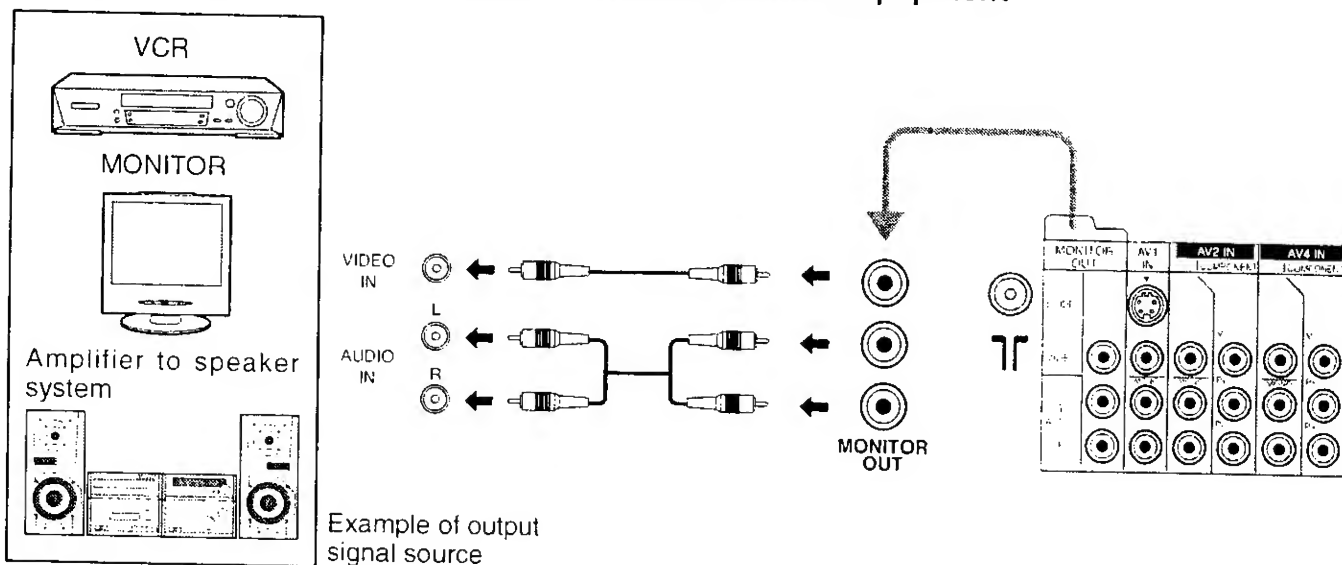
Notes:

- (1) To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ohm coaxial) and the correct terminating plug are required.
- (2) If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerial socket and your television receiver.
- (3) Your local Television Service Centre or Dealer may be able to assist you in obtaining the correct Aerial system for your particular area and the accessories required.
- (4) Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.

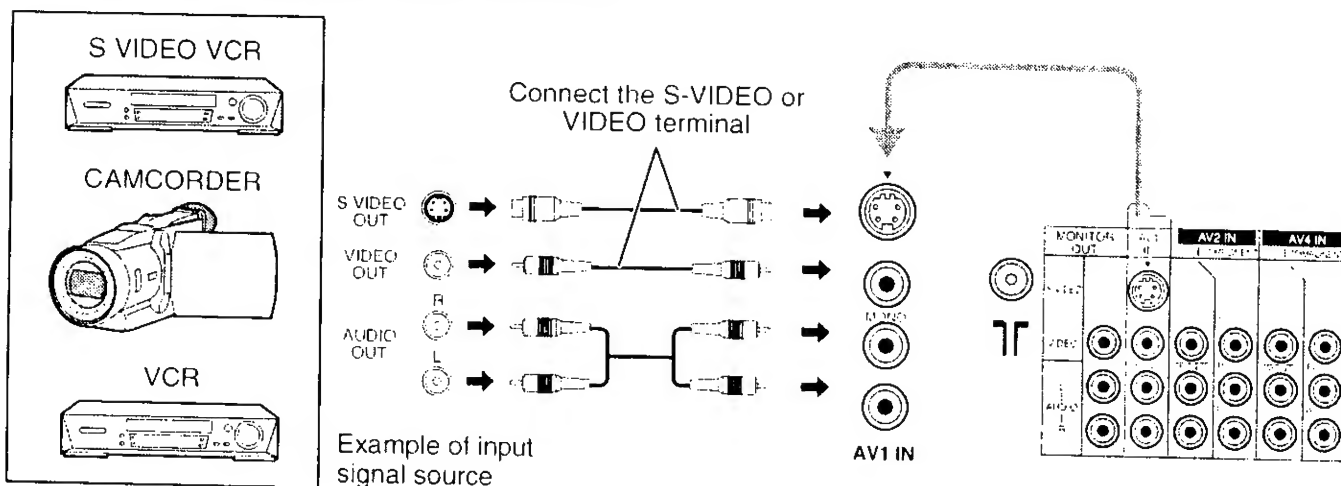
Cable Connection

AV & COMPONENT Connection

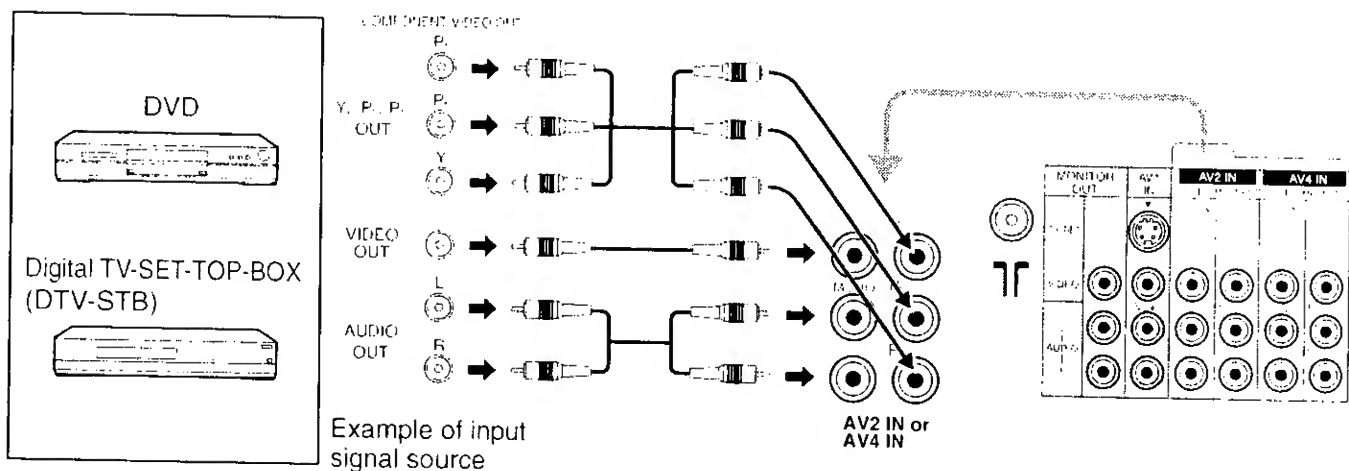
How to connect the Monitor Output Terminals to other Equipment



How to connect the AV1 Input Terminals



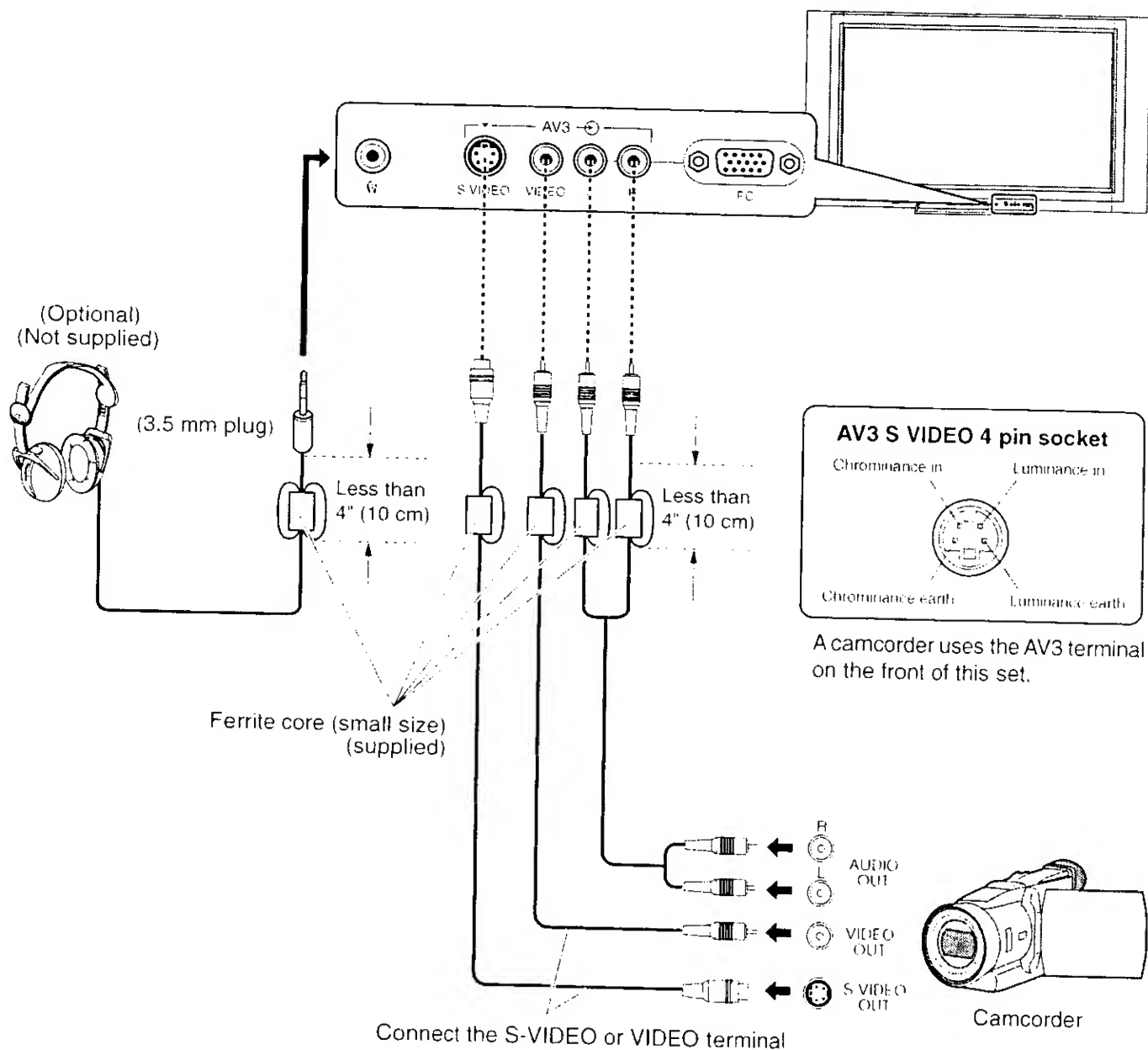
How to connect the DVD Input Terminals



Notes:

- Change the input signal to use the colour buttons on the remote control. (see page 17)
- Additional equipment, cables and adapter plugs shown are not supplied with this set.
- When a Monaural VCR is used, connect the Monaural Audio cable to the Audio "L"(Left) terminal.

Headphones / AV3 terminals Connection

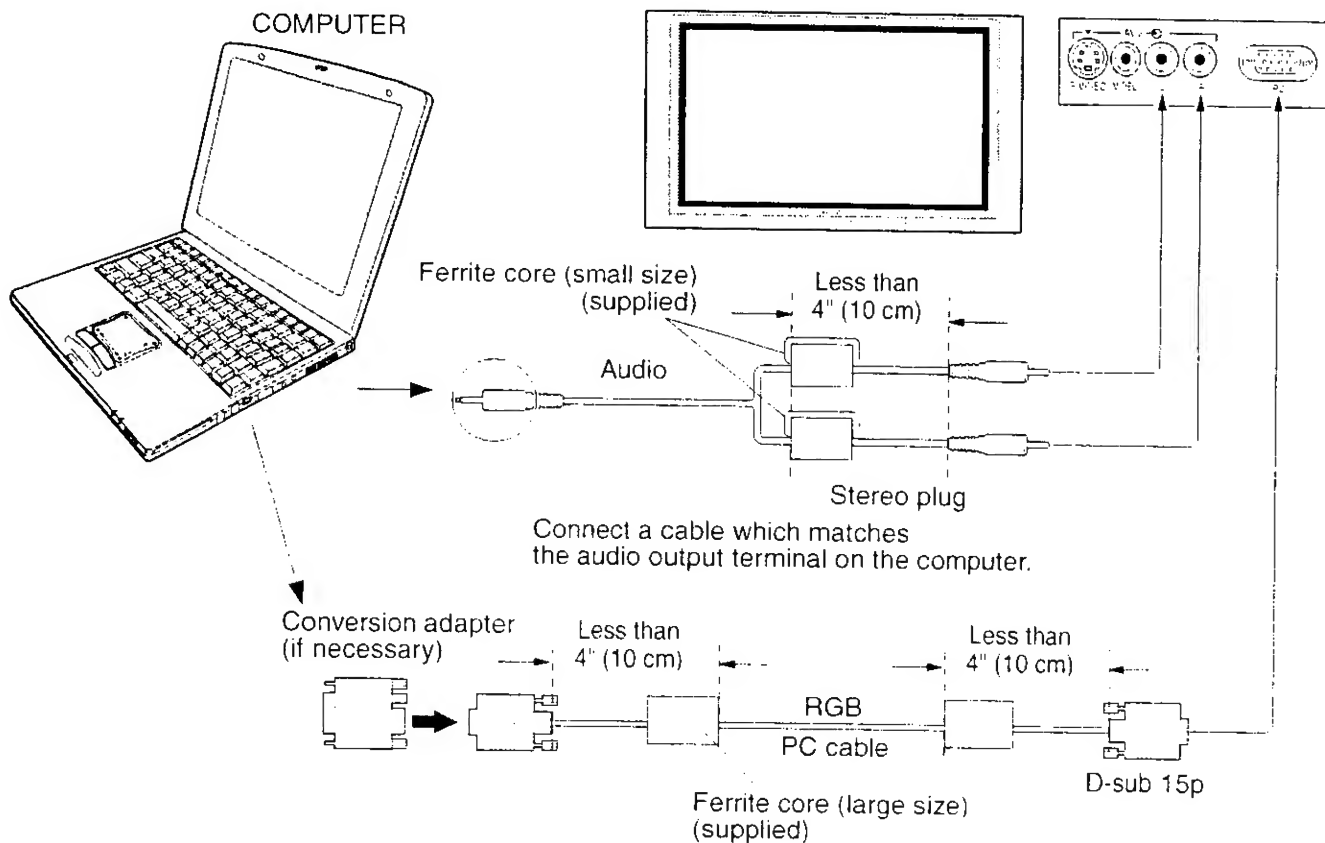


Notes:

- Change the input signal to use the colour buttons on the remote control. (see page 17)
- The volume level of the headphones can be adjusted by selecting "Headphone volume" from the Sound menu.
- Additional equipment and cables shown are not supplied with this set.

Cable Connection

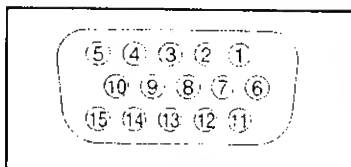
PC Input terminals Connection



Notes:

- (1) Computer signals which can be input are those with a horizontal scanning frequency of 15 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- (2) The display resolution is a maximum of 640 × 480 dots when the aspect mode is set to "4:3", and 852 × 480 dots when the aspect mode is set to "16:9". If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- (3) Some PC models cannot be connected to the set.
- (4) There is no need to use an adapter for computers with DOS/V compatible D-sub 15P terminal.
- (5) The computer shown in the illustration is for example purposes only.
- (6) Additional equipment and cables shown are not supplied with this set.
- (7) Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.
- (8) The Sound of the PC mode is combined with the Audio signal of AV3.

Signal Names for D-sub 15P Connector



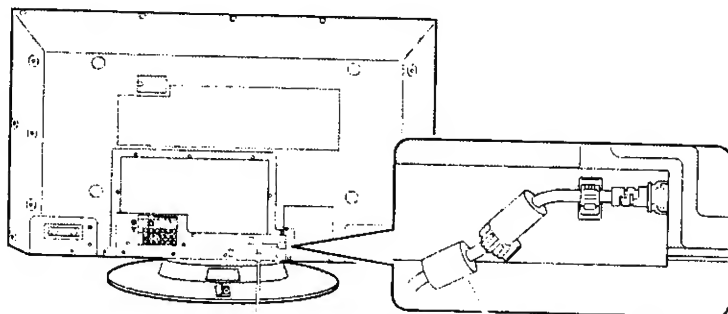
Pin Layout for PC Input Terminal

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC
③	B	⑧	GND (Ground)	⑬	HD/SYNC
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC

Power ON / OFF

AC cord Connection

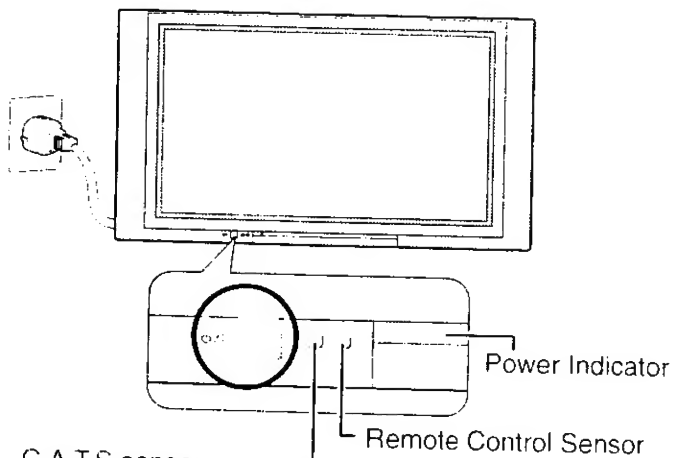
Connecting the AC cord plug to the Plasma TV.



Fix the AC cord plug securely to the Plasma TV with the clammer.

Ferrite core (large size) (supplied)

Power On/Off




C.A.T.S. sensor

Plasma C.A.T.S (Contrast Automatic Tracking System)
Plasma C.A.T.S automatically senses the ambient light conditions and adjusts the brightness and gradation accordingly, to optimise contrast.
(Effective when Viewing mode is set to Auto.)

Connect the plug to the Wall Outlet

Note:

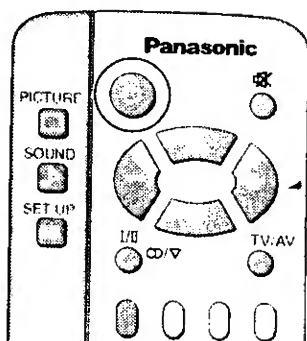
Main plug types vary between countries. The power plug shown at left may, therefore, not be the type fitted to your set.


Press the  switch on the Plasma TV to turn the set on: Power-On.

Owner ID setting screen is displayed. (see page 23)


From the second time on, the below screen is displayed for a while (setting condition is an example).


For VIDEO /
COMPONENT / TV
INPUT:



Press the  button on the remote control to turn the Plasma TV to standby.

Power Indicator: Red (standby)

Press the  button on the remote control to turn the Plasma TV on.

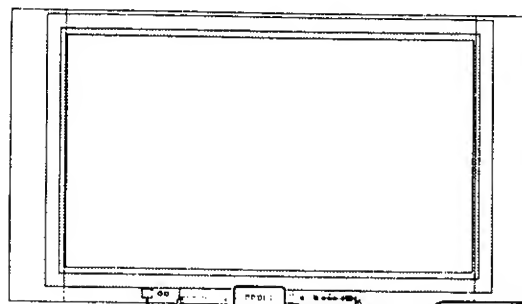
Turn the Plasma TV set off by pressing the  switch on the Plasma TV, when the Plasma TV is on or in standby mode.

Note:

The unit will still consume some power as long as the mains lead is still inserted into the mains outlet.

General Operation

Front panel controls and Remote control



Volume Up (+), Down (-)/

Programme Number Up (^), Down (v)

Volume adjustment which uses these buttons is performed after pressing Function button.

When programme number up (^) or down (v) button on the front panel of the Plasma TV is pressed in stand-by mode, the Plasma TV will be turned on.

Plasma TV ON / Off Switch

(see page 17, 19-21, 23, 35)

Store

TV/AVmode Selection

Press to select TV, AV input signal modes sequentially.

Picture menu (see page 25, 26)

Sound menu (see page 27, 28)

Setup menu (see page 24)

Stereo Bilingual Sound Selection
(see page 37)

TV/TEXT Selection
(see page 34-36)

TEXT Favourite Page Selection
(see page 35)

PC input button (see page 30-32)

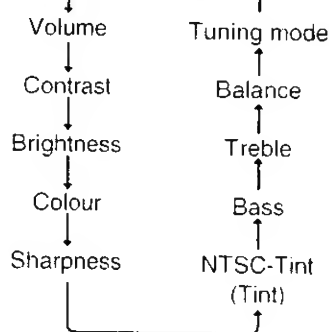
Surround On or Off (see page 28)

Aspect Control (see page 29)

Function selection

Displays the On Screen Display functions, press repeatedly to select from the available functions.

The following adjustments can be accessed directly.



Notes:

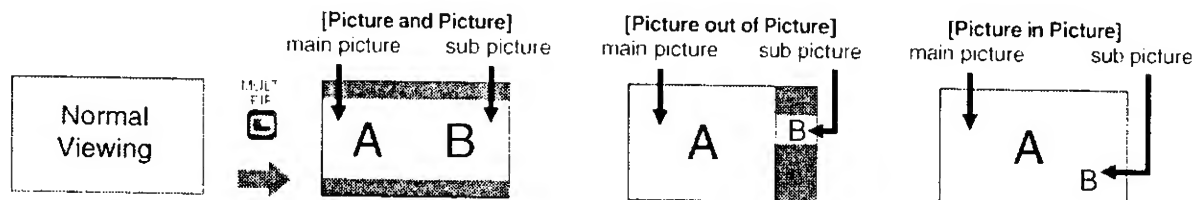
- NTSC-Tint : Receiving NTSC signals.
- Tint : Receiving YUV(60Hz) signals.
- Tuning mode : Not displayed during AV mode.

MULTI PIP (Picture In Picture)



Press to display main picture and sub picture (see page 33).

The main picture and sub picture can be changed by using Red, Green and Blue buttons.



Recall

Press to display the current system status, for example, Programme number, Channel number, Stereo mode, Picture menu, Sound menu, Scan mode, Sound system and colour system.

N (Normalise) button

Resets all settings to their default levels

Power (Stand-by)

The TV set must first be plugged into the wall outlet and turned on at the power switch.
Press this button to turn the TV set On from Standby mode.
Press it again to turn the TV set to Standby mode.

Sound Mute

Press to mute the sound completely the "Mute" symbol will appear.
Press again to restore the previous sound level, and cancel the mute.

Note:

It is also possible to turn the TV set on from STANDBY mode by pressing the "Direct Programme Number Selection" Buttons (0-9) on the Remote Control.

Programme Number Selection

Press to select the next higher or lower Programme number.

Volume Adjustment

Press to increase or decrease the sound volume level.

Volume  23

TV/AV Mode Selection

Press to select TV, AV input signal modes sequentially.

Coloured buttons used for

- AV Selection (see page 17)
- Channel Search (see page 28)
- Aspect Controls (see page 29)
- Multi PIP (see page 33)
- Teletext functions (see page 34-36)

TEXT Index

(see page 36)

Channel Search

(see page 28)

TEXT Hold

(see page 35)

STILL

Press to freeze the picture, press again to return to watching the current programme.

Direct programme Number

• Direct Programme Number Selection

You can select the number directly by pressing the corresponding programme number buttons.

Programme Number 8..... **8**

Programme Number 36..... **3** , **6**

Programme Number 124... **1** , **2** , **4**

Note:

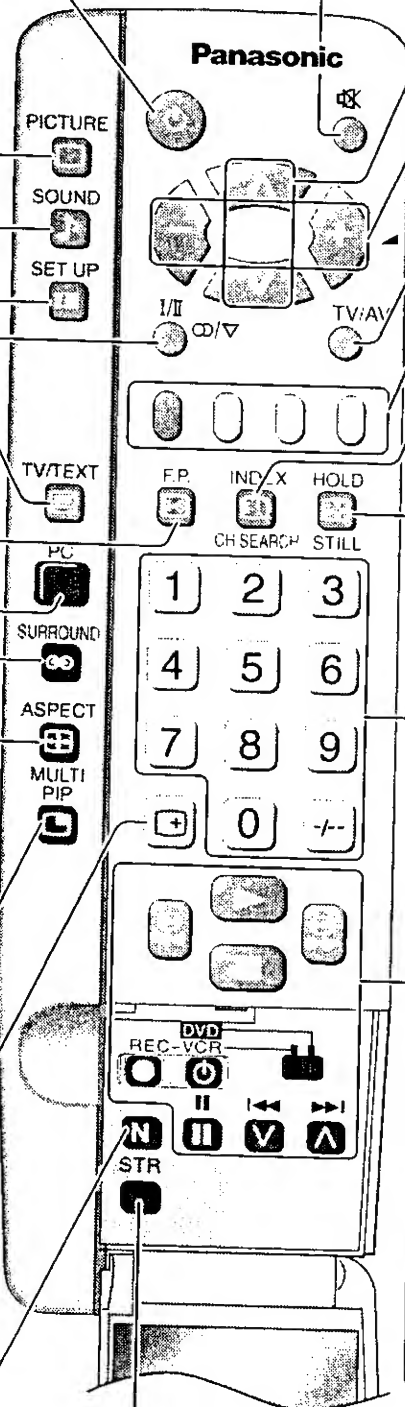
When the Skip setting for Programme Number 100 through 125 is on, the channel selection time will be shortened, and thus you can not input three digits at a time.

VCR / DVD Operation (see page 37)

The Remote Control is capable of operating some functions of selected VCR's and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions, so to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.

Store (see page 17, 19-21, 23, 35)

Stores some settings in Tuning menus and Teletext.



Using the On Screen Displays

Many features available on this set can be accessed via the On Screen Display menu system. Use the remote control as shown below to access and adjust features as desired.

Press to display "Picture menu" screen. (see page 25, 26)

Picture menu	
Menu	Dynamic
Contrast	
Brightness	
Colour	
Sharpness	
NTSC-Tint/Tint	
Colour temperature	Standard
P-NR	Auto
3D-COMB	On

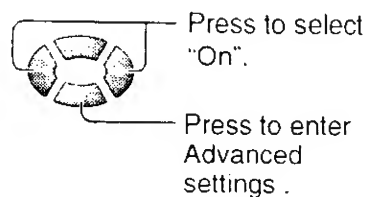
Note:

NTSC-Tint/Tint: Displayed in NTSC/YUV(60Hz) only.

During "PC" input signal

To Picture adjust menu (see page 30, 31)

Picture	
Normalise	Normal
Picture Mode	Normal
Contrast	25
Brightness	0
Sharpness	0
White balance	Warm
Advanced settings	Off



To Advanced settings (see page 31)

Advanced settings	
Normalise	Normal
WB High: R	0
WB High: B	0
WB Low: R	0
WB Low: B	0
Gamma	2.2

Press to display "Sound menu" screen. (see page 27, 28)

Sound menu	
Menu	Music
Volume	
Bass	
Treble	
Balance	
Headphone volume	
Surround	Off

Press to display "Setup menu" screen. (see page 24)

During TV mode

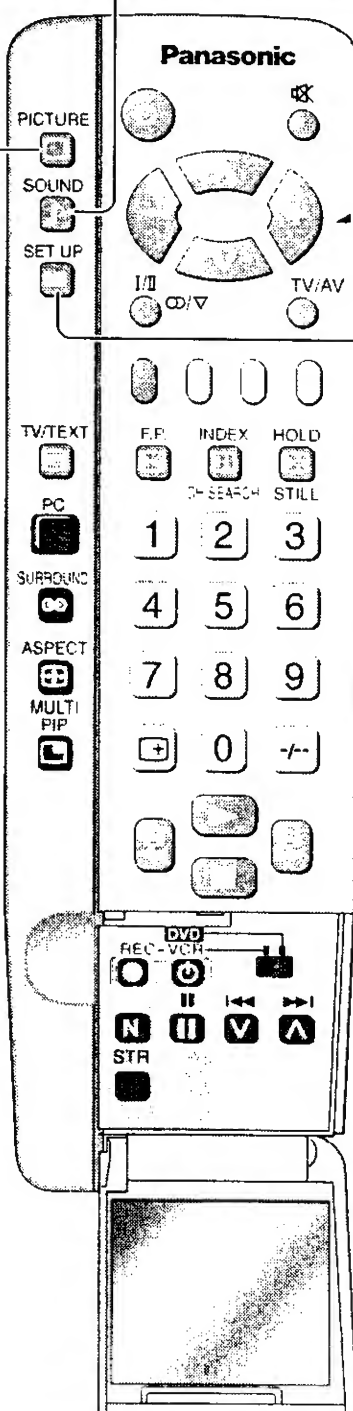
Setup menu	
Teletext	TOP
Off timer	Off
Ch colour set	
Child lock	Off
Side panel	High
Power save	Off
Tuning menu	
Owner ID	

During AV mode

Setup menu	
Teletext	TOP
Off timer	Off
Ch colour set	
Child lock	Off
VCR GAME	Off
Colour system	Auto
Side panel	High
Power save	Off
Owner ID	

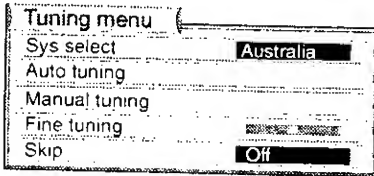
During "PC" input signal (see page 32)

Setup	
Normalise	Normal
H-Size	
V-Size	
H-Pos	
V-Pos	
Clock Phase	
Sync	H&V

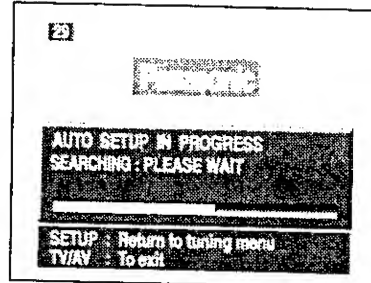


Using the On Screen Displays

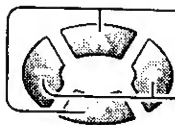
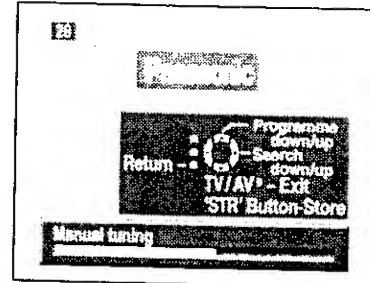
To Tuning menu (see page 18)



Auto tuning (see page 18)



Manual tuning (see page 19)



Press to move the cursor up and down on the menu.

Press to access menus, adjust levels or to select from a range of options.



The **STR** button is used with a number of features to store settings after adjustments have been made or options have been set.



The **TV/AV** button is used to exit the menu system and return to the normal viewing screen.

Please refer to the On Screen Help

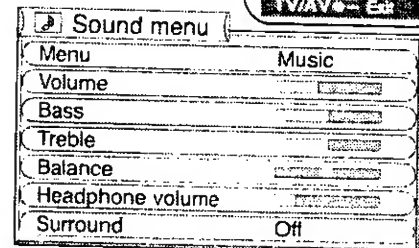
An On Screen Help box is displayed whenever a menu is displayed on the TV.

This Help box indicates which buttons on the remote control are used to navigate the menu shown, see above for descriptions of button functions.

Note:

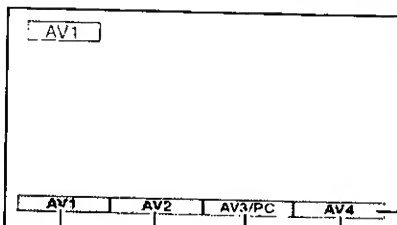
The Help box is not shown in the menu pictures in this instruction book due to space limitations.

On Screen Help
'Instruction' box



Input signal selection by colour button

Input selection will be made by colour button, which match on screen button indication.



Colour Bar Guide

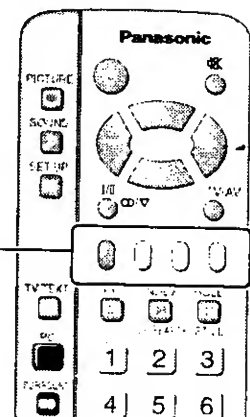
During AV4 input: Composite / Component

During AV3 input: Composite → S Video ↔ PC

During AV2 input: Composite / Component

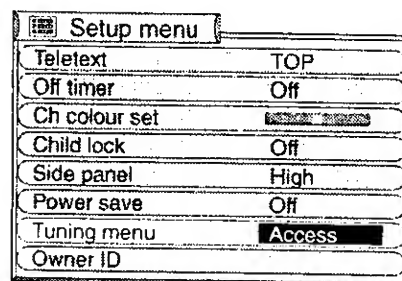
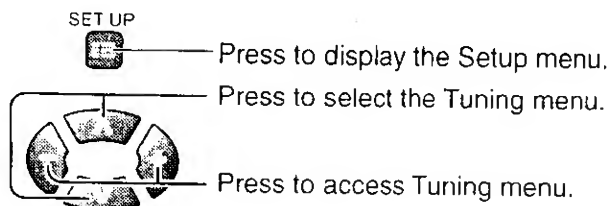
During AV1 input: Composite → S Video

Colour Buttons

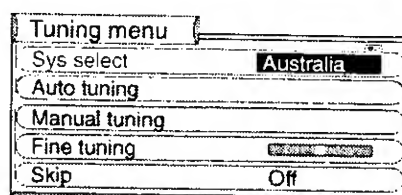
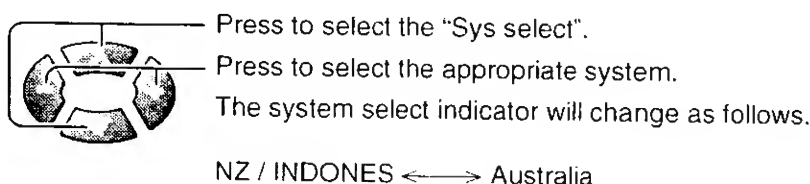


Tuning Channels

1 Display the Tuning menu



2 Regional System Selection

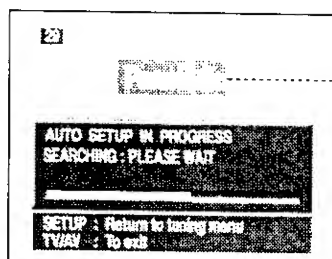
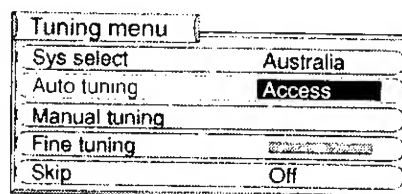
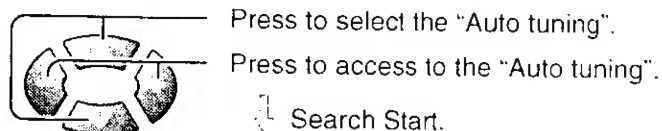


System Select by Regional

Sys select	Region
NZ / INDONES	New Zealand, Indonesia, etc.
Australia	Australia

Auto tuning

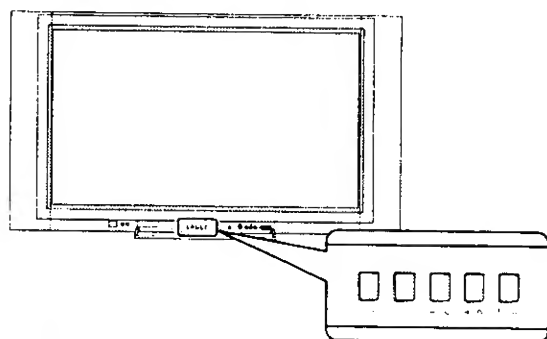
This TV uses auto tuning to determine whether or not the TV can receive a broadcast signal which is being sent. Before Auto tuning, Regional System must already be set.



When a station is found.
The best tuning position is automatically memorized.

Auto tuning (via front panel)

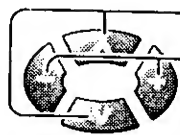
It is also possible to use the control panel buttons on the front of the TV to tune individual programme positions.



- 1 Press (Front panel) until Tuning mode is reached.
 - 2 Press or to access Tuning mode.
 - 3 Press (Front panel) to access Auto tune.
 - 4 Press or to start search.
- Press at any time to exit the Tuning menu.

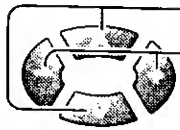
Manual tuning

Before Manual tuning, Regional System must already be set (see page 18).



Press to select the Manual tuning.

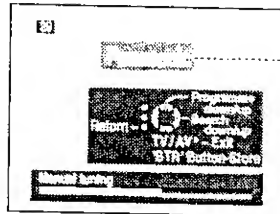
Press to access to the Manual tuning.



Press to select the desired Programme Number.

Press to select the higher or lower channel.

↓ Search Start.



When a station is found.



When the desired station is found, press to store.
The tuning position is memorized.

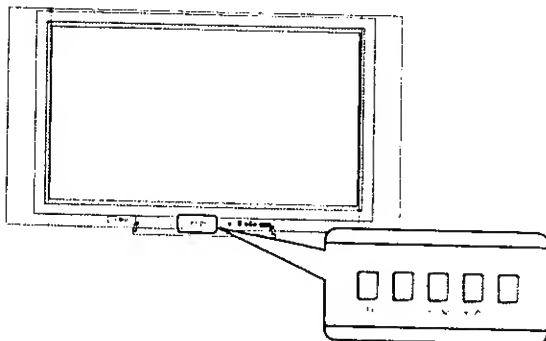


Press to exit from the Tuning Menu.
This returns the set to the normal viewing condition.

Tuning menu	
Sys select	Australia
Auto tuning	
Manual tuning	Access
Fine tuning	
Skip	Off

Manual tuning (via front panel)

It is also possible to use the control panel buttons on the front of the TV to tune individual programme positions.



- 1 Press (Front panel) until Tuning mode is reached.
- 2 Press or to access Tuning mode.
- 3 Press to move between Change programme, Search and Change TV system.
- 4 Press or to change programme position or start search.
When the desired station is found, press to store.
The programme position will flash.
Repeat above procedure to tune additional programme positions.

Press at any time to exit the Tuning menu.



Helpful Hint (N / Normalise Normalisation)

(1)



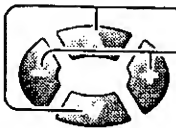


After the Manual tuning or the Auto tuning is finished, under the normal viewing condition press this button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused (no TV stations), it is possible to skip such Programme Numbers. Please refer to the Programme Number Skip operation on page 21.

- (2) When using a VCR without video and audio input/output terminals, it is convenient to connect the aerial cable as indicated in the instruction manual of VCR and to set the designated channel to programme No. "0". In that case, perform manual tune after setting the colour system and sound system in advance. Further, in multi-system VCR, it is more convenient to set the designated channel to several programme Numbers.

Tuning Channels

Fine tuning

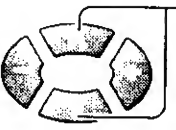


Under normal reception conditions this function is not required or necessary. However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

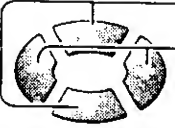


- 1  Press to select the Fine tuning.
Press until the clear picture is received.
- 2  Press to store the Fine tuning.
This stores the Fine tuning to the selected Programme Number.
- 3  Press to exit from the Fine tuning.
This returns the set to the normal viewing condition.

Tuning menu	
Sys select	Australia
Auto tuning	
Manual tuning	
Fine tuning	Access
Skip	Off

How to Cancel the Fine tuning

Canceling previously adjusted (manually) fine tuning, means re-activating the AFT (Automatic Fine Tuning). Re-activating the Automatic Fine Tuning means allowing the set to automatically tune to the optimum tuning position, for that programme Number.

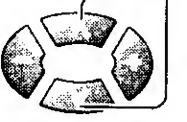
- 1  Select the Programme Number which you would like to return to Automatic Fine Tuning (cancel the manual fine tuning).
- 2  Press to display the Setup menu.

Proceed to the Tuning menu (see page 16, 17).


- 3  Press to select the Manual tuning.
Press to access to Manual tuning.
Press briefly to tune the best position.
- 4  Press to store the AFT.
This stores the re-activated AFT.
- 5  Press to exit from the Manual tuning.
This returns the set to the normal viewing condition.

Tuning menu	
Sys select	Australia
Auto tuning	
Manual tuning	Access
Fine tuning	
Skip	Off

Programme Number Skip


It is possible to skip Programme Number on which no TV stations are tuned appearing on the screen. The function is only effective when selecting Programme Numbers by pressing the Programme Number Up or Down button either on the TV set or on the Remote control.

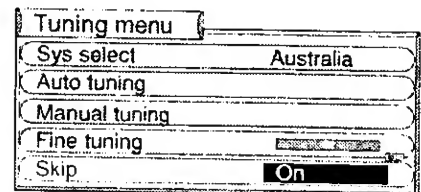
- 1  Under the normal viewing condition press to select the Programme Number you would like to skip.


- 2  Press to display the Setup menu.




Proceed to the Tuning menu (see page 16, 17).

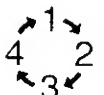
- 3  Press to select the Skip.
Press to change the mode to "On".




- 4  Press to store the Skip function.



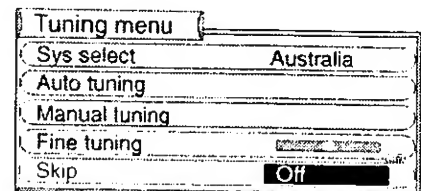
-  Press to exit from the Skip.
This returns the set to the normal viewing condition.

- 5  Repeat Step1 to 4 for each Programme Number for which the Skip function is desired.

How to Cancel the Skip Function

- 1  Press to select the Skip.
Press to change the mode to "Off".

- 2  Press to store the Skip function.



Tuning Channels

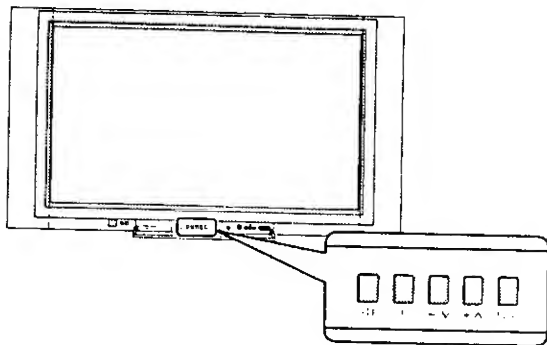
Channel Allocation

The receiving channels are as follows:

Sys select	NZ/INDONES	Australia
CH DISPLAY	RECEIVE CHANNEL	
0	—	—
1	1	0
2	2	1
3	—	2
4	—	3
5	—	4
6	—	5
7	—	S2
8	—	—
11	11	—
12	—	—
13	—	—
14	—	—
15	—	S10
16	—	6
17	—	—
19	—	9
20	—	9A
21	21	10
22	—	11
23	—	12
24	—	S11
25	—	—
28	—	—
29	—	—
57	—	S44
58	—	20
59	—	21
60	—	—
62	62	—
63	63	—
64	—	—
69	69	—
70	—	—
71	—	—
73	—	—
74	S1	—
75	S2	—
76	S3	—
77	—	—
78	—	—
79	—	—
80	S1	—
81	S2	—
82	—	—
89	S10	—
90	S11	—
91	S12	—
92	S13	—
93	S14	—
94	S15	—
95	S16	—
96	S17	—
97	S18	—
98	S19	—
99	S20	—
100	S21	—
101	—	—
107	—	69
108	—	—
117	—	—
118	—	—
119	—	—
120	S41	—
121	—	—
125	—	—


Owner ID

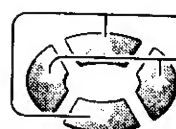
Owner ID allows you to enter a security code (Owner ID) and your personal details into the memory, so that in the unfortunate event of theft it will help the police to trace the owner.



If you wish to check the personal details already entered into the TV, press the **F** (Front panel) and hold for 5 seconds. The details already entered are displayed on screen.

If **Owner ID** information was not entered when you switched on your TV for the first time or it is necessary to alter some of the information, **Owner ID** can be re-accessed via the Tuning menu.

1  Press to display the Setup Menu.

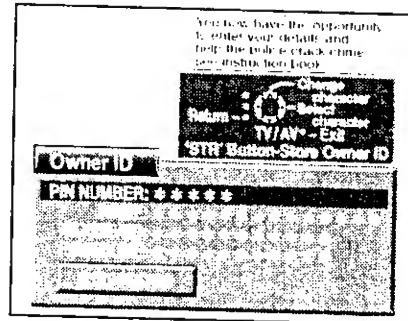
2  Press to select the "Owner ID".
Press to access "Owner ID".

Setup menu	
Teletext	TOP
Off timer	Off
Ch colour set	Auto
Child lock	Off
Side panel	High
Power save	Off
Tuning menu	
Owner ID	Access



If the **Owner ID** has previously been set, enter the **PIN NUMBER** (using 0 to 9 on the remote control) followed by **STF** to proceed, this will take you to the **NAME** option.



If no **Owner ID** has previously been set, enter the required 4 digit **Owner ID PIN NUMBER** (using 0 to 9 on the remote control).

If a 4 digit **PIN NUMBER** was entered above, you will be taken automatically to the **NAME** line.



If not, move to the **NAME** line by using  or .

Change character by using  or .

Select character position by using  or .

Repeat above until **NAME**, **HOUSE NUMBER** and **POSTCODE** are entered.



Press **STF** to store the details.

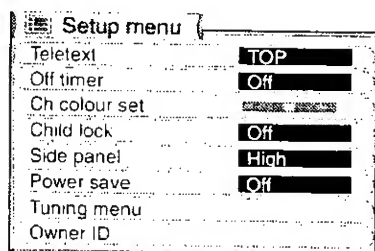
Press again when you are asked, "Are you sure?"

The Owner ID is now stored.

For future reference,
write your **PIN NUMBER** here :

Setup Adjustment

- 1  Press to display the Setup menu.
- 2  Press to select the desired function.
Press to adjust or change the function.



- 3  Press to go back to watching TV.

Teletext

Allows you to choose 2 modes. (see page 34-36)

TOP \longleftrightarrow List

Off timer

Switches the TV off within a preset time which you can choose from between 0 to 90 minutes in 15 minutes intervals.

\rightarrow Off \longleftrightarrow 15 \longleftrightarrow 30 \longleftrightarrow 45 \longleftrightarrow 90 \longleftrightarrow 75 \longleftrightarrow 60 \leftarrow

Ch colour set

Colour density varying between broadcast channels can be adjusted to three levels for each reception channel.

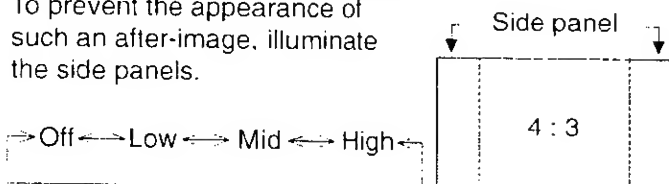
Child lock

If the Child-Lock function is set On, picture and sound of the TV/AV mode being viewed will disappear and a Black screen will appear.

Side panel

Do not display a picture in 4:3, 14:9 mode for an extended period, as this can cause an after-image to remain on the side panels either side of the display field.

To prevent the appearance of such an after-image, illuminate the side panels.

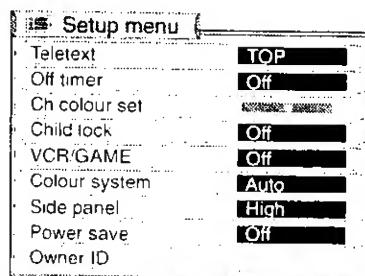


Power save

By reducing the brightness of picture, power consumption be lower.

On \longleftrightarrow Off

During AV mode, the appearance of the Setup menu will differ from that of the TV mode, with the following function adjustments becoming available.



VCR/GAME

Reproduction of irregular signals, such as certain TV games and rental video tapes, may be improved.

Colour system

During AV mode, Colour system is displayed.

If a clear picture with current colours cannot be obtained when a Broadcast or AV signal is received, then the colour system will change as shown.

\rightarrow Auto \longleftrightarrow PAL \longleftrightarrow NTSC3.58 \longleftrightarrow NTSC4.43 \leftarrow

PAL and NTSC 3.58 are different colour signal broadcast transmission systems applicable to differing countries. NTSC 4.43 is a trick playback mode used in special VCR to playback NTSC recorded video tapes through PAL television equipment.

Picture Adjustment

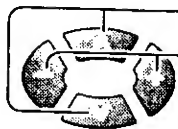
1

PICTURE



Press to display the Picture Menu.

2



Press to select the desired function.

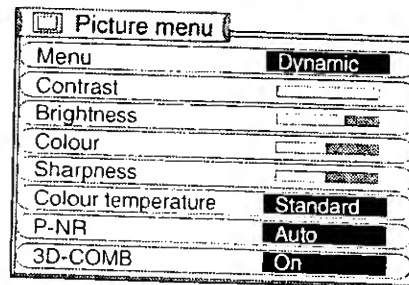
Press to adjust or change the function.

3

TV/AV



Press to go back to watching TV.

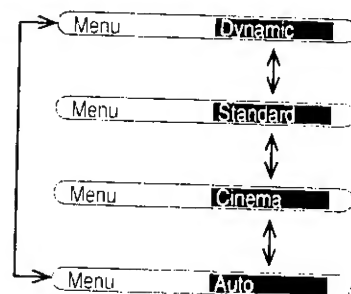
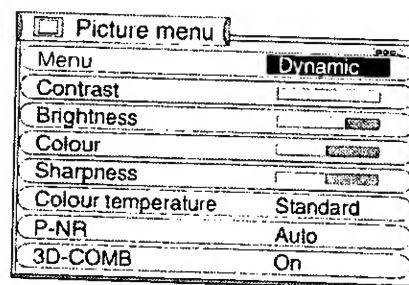


Menu

Picture menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

- You can change the level of each Item (Contrast, Brightness, Colour, Sharpness, NTSC-Tint, Colour temperature and P-NR) for each Picture Menu (Dynamic, Standard, Cinema and Auto).

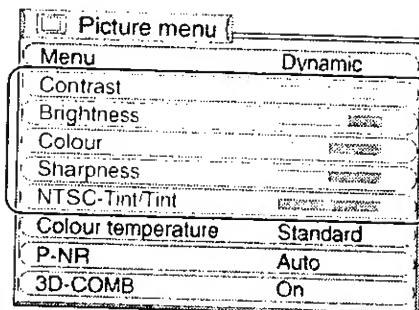
Picture Menu	Function
Dynamic	For viewing in brighter environments. This menu selects a higher than normal levels of Brightness and Contrast.
Standard	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
Cinema	Ideal for movies. Can be selected for VIDEO/COMPONENT.
Auto	Automatically selects the mode that best suits the brightness of the environment.



Contrast, Brightness, Colour, Sharpness, NTSC-Tint (Tint)

Increase or decrease the levels of Contrast, Brightness, Colour and Sharpness options according to your personal preference.
With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste.

Item	Effect	Function
Contrast		Adjust for contrast.
Brightness		Adjusts for easier viewing of dark pictures such as night scenes and hair.
Colour		Adjusts slightly to a lighter colour.
Sharpness		Displays a sharp image.
NTSC-Tint (Tint)		Adjust for proper skin colour.



Notes:

- When set to Multi PIP mode, the main and sub pictures are both adjusted simultaneously.
- When the TV is receiving NTSC signals, NTSC-Tint is displayed.
- When the TV is receiving YUV(60Hz) signals, Tint is displayed.

Picture Adjustment

Colour temperature

Set the overall colour tone of the picture.



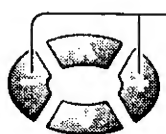
Press to switch between modes.

→ Standard ↔ Warm ↔ Cool ←

Picture menu	
Menu	Dynamic
Contrast	
Brightness	
Colour	
Sharpness	
Colour temperature	Standard
P-NR	Auto
3D-COMB	On

P-NR (Picture Noise Reduction)

Automatically reduces undesired picture noise.



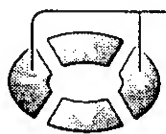
Press to switch between modes.

→ Off ↔ Strong ←
→ Auto ↔ Weak ←

Picture menu	
Menu	Dynamic
Contrast	
Brightness	
Colour	
Sharpness	
Colour temperature	Standard
P-NR	Auto
3D-COMB	On

3D-COMB

If the 3D-COMB function is On, dot interference or cross colour will be reduced.



Press to switch between On and Off.

On ↔ Off

Note:

Displayed only when receiving PAL or NTSC signals.
Not displayed during S-Video input and YUV input mode.

Picture menu	
Menu	Dynamic
Contrast	
Brightness	
Colour	
Sharpness	
Colour temperature	Standard
P-NR	Auto
3D-COMB	On

Helpful Hint (Normalization)

By pressing the Normal "N" Button on the Remote Control while the Picture menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

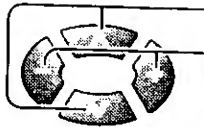
The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

Sound Adjustment

SOUND



Press to display the Sound Menu.



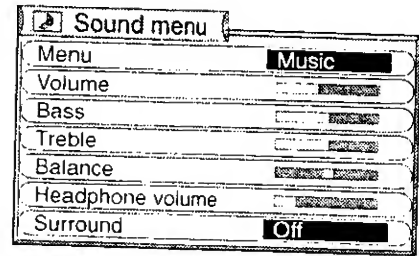
Press to select the desired function.

Press to adjust or change the function.

TV/AV



Press to go back to watching TV.



Note:

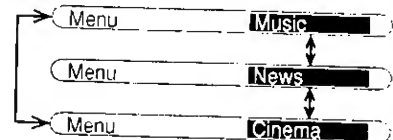
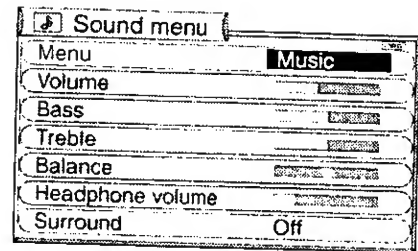
Some features are only available with the Surround feature switched off. Press to switch between On and Off.

Menu

Sound menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

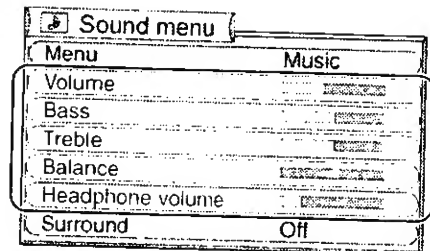
- You can change the level of Bass and Treble for each Sound Menu (Music, Cinema and News).

Sound Menu	Function
Music	Amplifies the Low frequencies and outputs optimum sound. For music programmes for example.
News	Human voices (middle pitch sounds) will sound more clear.
Cinema	For movie and drama programmes.



Volume, Bass, Treble, Balance, Headphone volume

Item	Effect	Function
Volume		Adjusts output volume.
Bass		Adjusts low sounds.
Treble		Adjusts high sounds.
Balance		Adjust left and right volumes.
Headphone volume		Adjust Headphone volume.



Note:

When using one of the double window features, note that the headphones will relay the soundtrack for the programme in the main window, not the smaller window.

Sound Adjustment / Channel Search

Surround

SURROUND



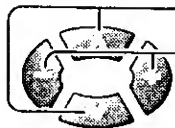
Press to switch between On and Off.

OR

SOUND

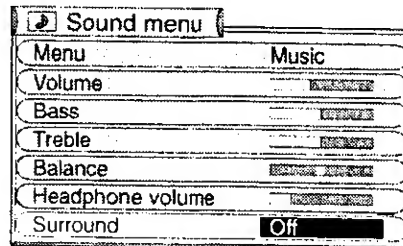


Press to display the Sound Menu.



Press to select the Surround function.

Press to switch between On and Off.



The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.

The surround effect can be obtained without the use of external surround speakers.

Helpful Hint (Normalization)

By pressing the Normal "N" Button on the Remote Control while the Sound menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

Channel Search

Select the desired channel after displaying still pictures of all stored channels on the screen divided into 9 sections.

INDEX



CH SEARCH

Press to display divided-by-9 screen of all channels.



Red

Press to select channel number.
The yellow channel number changes successively each time the button is pressed.



Green

Press to view the selected channel normally.



Blue

Press to exit from channel search.

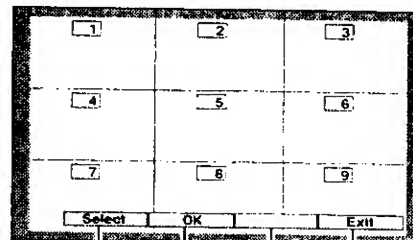
OR

INDEX



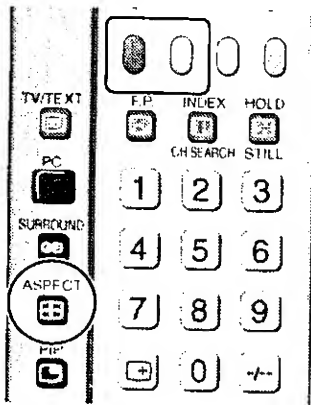
CH SEARCH

Press to exit from the feature.



Red Green Yellow Blue

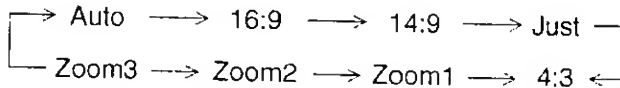
Aspect Controls



ASPECT



Press to select the different Aspect options.



PC mode :












Notes:

ASPECT

- Simply press to display mode information in the top left of the screen.
- 16:9 picture has been used to illustrate all of the aspect modes described in this section.

The on screen selector keys (corresponding to the four coloured buttons on the remote control) appear for some Aspect functions and disappear after a few seconds. If you would like to select an operation when the keys are not shown, press once more and the keys will reappear.


Mode	Picture	Explanation
Auto	  <p>16:9 Signal 4:3 Signal</p>	The Auto position can be set to 16 : 9. When a wide screen signal is detected at the Video terminal the TV will select the 16:9 aspect ratio.
16 : 9	  <p>16:9 Signal 4:3 Signal</p>	The 16:9 option will display the picture at its maximum size. Signals in the 4:3 format will be stretched to fit the picture.
14 : 9		The 14:9 option will display a 4:3 signal in simulated wide screen. The picture is slightly stretched. It is also slightly cropped top and bottom.
Just		Just gives you a best fit option when showing 4:3 on wide screen. The centre of the picture is not affected but there is some stretching at the edges.
4 : 3		This option will display a standard 4:3 picture without any stretching or compression. There will be vertical gray lines down either side of the picture.
Zoom1		This option allows you to magnify the picture.
Zoom2. Zoom3		The picture becomes larger and larger when you change the mode Zoom2 and Zoom3.

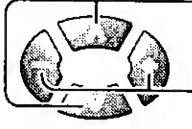
Notes:

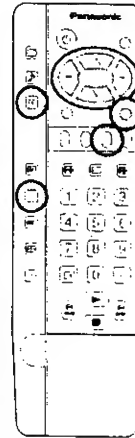
- ASPECT operations cannot be made during progressive (Y, P_B, P_R) or 1080i signal input.
- The Red and Green buttons let you change the mode during the mode displays (except PC mode).

PC mode Adjustments

When you switch to PC input (AV3 / PC), Picture menu will be changed as shown below.
Sound menu will not be accessible in PC mode.

1  Press to display the picture menu screen.

2  Press to select the menu to adjust.
Adjust the desired level by looking at the picture behind the menu.



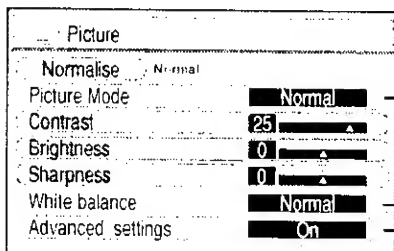
- 1** Press **TV/AV** button.
- 2** Press **Yellow (AV3)** button to access 'PC' mode.



OR

- 1** Press **PC** button to access 'PC' mode.

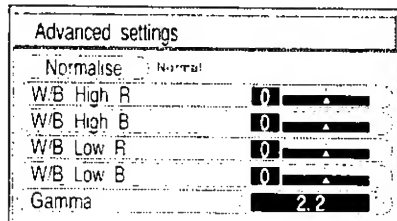
Note:

Press PC button again to return to watching the current programme.



-  Press to select "On".
-  Press to enter Advanced settings.

Advanced settings On
Enables fine picture adjustment at a professional level (see next page).



Advanced settings Off
Displays images with settings of the Picture menu.

Press the left ◀ or right ▶ button to switch between modes.



Auto

Automatically selects the mode that best suits the brightness of the environment.

Normal

For viewing in standard (evening lighting) environments.

This menu selects the normal levels of Brightness and Contrast.

Dynamic

For viewing in brighter environments.

This menu selects higher than normal levels of Brightness and Contrast.

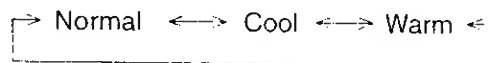
Cinema

Ideal for movies.



Note:

If you would like to change the picture and colour of the selected Picture menu to something else, adjust using the items in the Picture menu. (see next page)







Press the left ◀ or right ▶ button to switch between modes.



Helpful Hint (N / Normalise Normalisation)

While the "Picture" menu is displayed, if either the N button on the remote control is pressed at any time or the  or  button is pressed while the yellow cursor is at the "Normalise" position, then all adjustment values are returned to the factory settings.

PC mode Adjustments

Item	Effect	Function
Contrast	Less   More	Adjusts the proper brightness and density for the room.
Brightness	Darker   Brighter	Adjusts for easier viewing of dark pictures such as night scenes and black hair.
Sharpness	Less   More	Adjusts picture sharpness.











Note:

You can change the level of each function (Contrast, Brightness, Sharpness) for each Picture menu.

Note:

In Picture, there is not a noticeable change even when contrast is increased with a bright picture or reduced with a dark picture.

Advanced settings

Item	Effect	Details
W/B High R	Less   More	Adjusts the white balance for light red areas.
W/B High B	Less   More	Adjusts the white balance for light blue areas.
W/B Low R	Less   More	Adjusts the white balance for dark red areas.
W/B Low B	Less   More	Adjusts the white balance for dark blue areas.
Gamma	Down   Up	S Curve \longleftrightarrow 2.0 \longleftrightarrow 2.2 \longleftrightarrow 2.5



Note:

Carry out "W/B" adjustment as follows.

- Ⓐ Adjust the white balance of the bright sections using the "W/B High R" and "W/B High B" settings.
 - Ⓑ Adjust the white balance of the dark sections using the "W/B Low R" and "W/B Low B" settings.
 - Ⓒ Repeat steps Ⓐ and Ⓑ to adjust.
- Steps Ⓐ and Ⓑ affect each other's settings, so repeat each step in turn to make the adjustment.



Helpful Hint (N / Normalise Normalisation)


While the "Advanced settings" menu is displayed, if either the N button is pressed at any time or the  or  button is pressed while the yellow cursor is at the "Normalise" position, then all adjustment values are returned to the factory settings.


PC mode Adjustments


Adjusting Position and Size

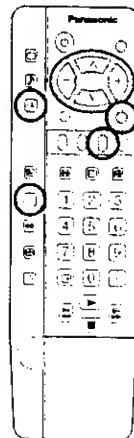
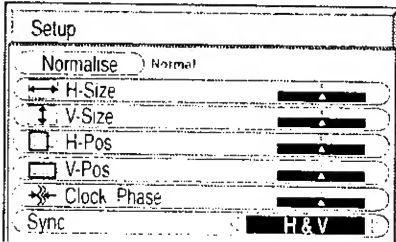
Adjusting screen

1  Press to display the Setup menu.

2  Press to select H-Pos/H-Size/V-Pos/V-Size/Clock Phase.

3  Press to adjust Pos./Size.

 Press to exit from adjust mode.



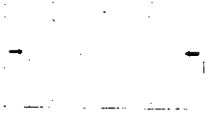

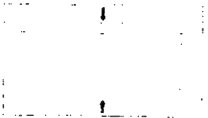
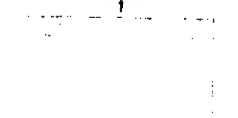


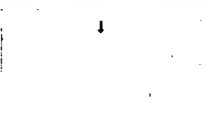
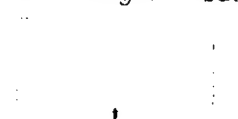

1 Press **TV/AV** button.

2 Press **Yellow** (AV3) button to access 'PC' mode.

OR



1 Press **PC** button to access 'PC' mode.

Note:
Press PC button again to return to watching the current programme.

H-Size	When the Position Left "-" button is pressed 	When the Position Right "+" button is pressed. 
V-Size	When the Position Left "-" button is pressed. 	When the Position Right "+" button is pressed. 
H-Pos	When the Position Left "-" button is pressed. 	When the Position Right "+" button is pressed. 
V-Pos	When the Position Left "-" button is pressed. 	When the Position Right "+" button is pressed. 
Clock Phase	Flickering and distortion can be eliminated by using the Position Left "-" or Right "+" button to carry out adjustment.	
Sync	H & V : To synchronize by the horizontal and vertical signals from your PC.  on G : To synchronize by the green signal form your PC (if available).	

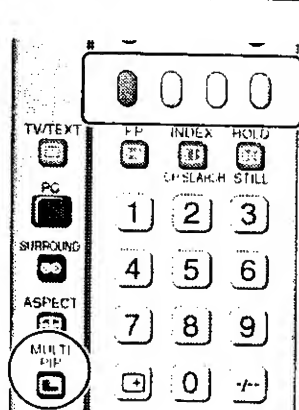


Helpful Hint (/ Normalisation)

While the "Setup" menu is displayed, if either the N button on the remote control is pressed at any time or the  or  button is pressed while the yellow cursor is at the "Normalise" position, then all adjustment values are returned to the factory settings.

Multi Screen

Multi PIP

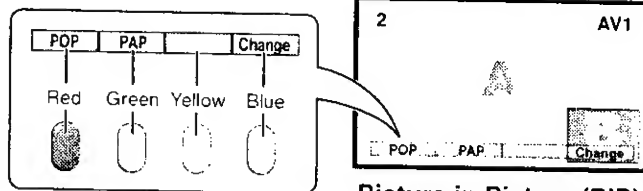


Press **MULTI PIP** to select the current programme, the **picture in picture**, **picture out of picture**, or **picture and picture** feature.

The on screen selector keys for the features (corresponding to the four coloured buttons on the remote control) appear and disappear after a few seconds. If you would like to select an operation when the keys are not shown, press **MULTI PIP** once more and the keys will reappear.

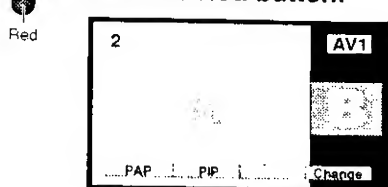
Allows two pictures to be viewed at the time.

Use the remote control to select a TV channel or an AV source to appear in the main window.



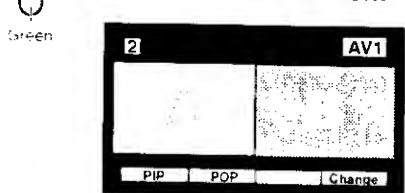
Picture in Picture (PIP)

Press the Red button:



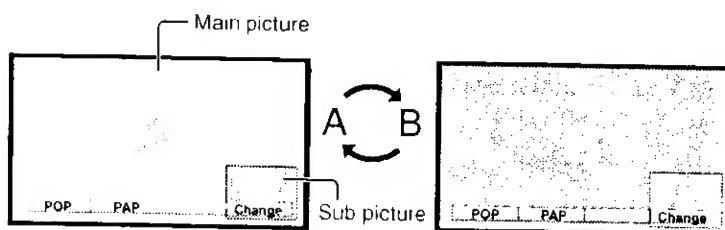
Picture out of Picture (POP)

Press the Green button:



Picture and Picture (PAP)

Press the Blue button:



Each time the main picture and the sub picture are swapped.

Notes:

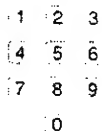
- MULTI PIP operations cannot be made during PC mode, or progressive signal or 1080i signal input (Y, PB, PR).
- This TV has one tuner. When the main and sub pictures are TV mode, these are the same TV channel.

Changing the channels



Select channels.

OR



Press the Number buttons on the remote control.

Changing the mode

• Main picture

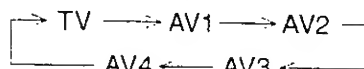
TV/AV — Press to select input mode.

• Sub picture

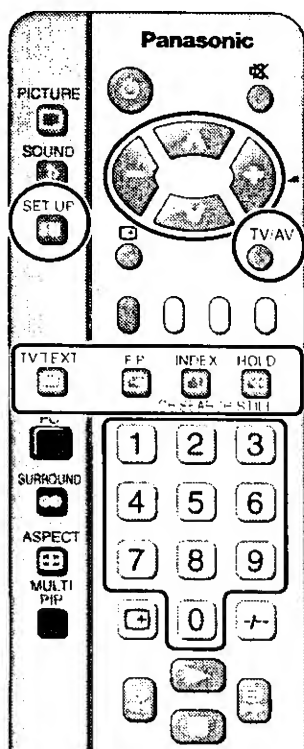
TV ↔ AV

MULTI PIP — Press to display the colour bar.

TV/AV — During the colour bar is displayed, press to select desired input mode.



Teletext



- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- Pressing the Picture button whilst in Teletext operation will display the contrast function with a cyan bar, press or to alter the setting as required.
- Pressing the Setup button whilst in Teletext operation will display special function options at the bottom of the screen.
- Pressing the Sound button whilst in Teletext operation will display the volume function with a green bar, press or to alter the setting as required.

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in this set's memory.

What is TOP mode?

In TOP mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

Note:

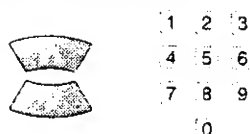
When watching TV in 4:3 or zoom mode, pressing TV/TEXT button will display teletext page momentarily in that aspect before switching to normal teletext picture size.

TV / Teletext mode



Press to switch between the current programme, teletext and the picture and text feature.

Page Selection



Pages can be selected in two ways:

- Press or to increase or decrease the page number by one.
- By entering the page number, using 0 -9 on the remote control.

Full / Top / Bottom



Press to display special functions, followed by the **Green** button. Press the **Green** button again to expand the BOTTOM half. Press again to return to normal (FULL) size.

Reveal



Press to display special functions, followed by the **Red** button to reveal hidden words e.g. quiz page answers. Press again to hide.

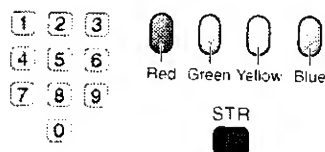
Red / Green / Yellow / Blue buttons



In TOP mode they correspond to the differently coloured subjects.
In List mode they correspond to the differently coloured page numbers.

It is not possible to change the programme position when in News flash, Update or Sub Coded Page Access operation.

List Store



In List mode the four page numbers can be altered (programme positions 1 - 25 only).

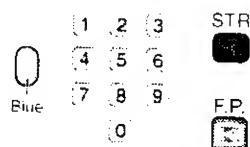
To do this, press one of the four coloured buttons and enter the new page number. Press and hold **STR**, the page number will change to white indicating that the page is stored.

Hold



Press **HOLD** to hold the Teletext page when viewing multi-page information. Press again to return to automatic page update.

Favourite Page (F.P.)



Stores a favourite page in memory for instant recall. To store such a page, this set must be in List mode, and the programme position must be from 1 - 25.

Press the **Blue** button, select the page number, then press and hold **STR**. The page number is now stored.

Press **F.P.** to recall this page.

Update Display News Flash Update

Update Display

Press **SET UP** to display special functions, followed by the **Yellow** button to view the TV picture whilst searching for a Teletext page.

When found, the screen will display the page number at the top left.

Press the **Yellow** button to view the page.

Press **TV TEXT** to return to normal TV operation.

News Flash

When a news flash page has been selected, press **SET UP**, **Yellow**, to view the TV picture. When an update is received, the page number will be displayed on screen.

Press the **Yellow** button to display the News Flash.

Press **TV TEXT** to return to normal TV operation.

Update

Press **SET UP**, **Yellow** to see the update of information on certain pages.

When an update is received, the page number will be displayed at the top left of the screen.

Press the **Yellow** button to view the page.

Press **TV TEXT** to return to normal TV operation.




Index

INDEX



When in Top operation

INDEX

Press  to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.

Sub Coded Page Access

SET UP



Blue




Yellow

When Teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found.

Select the required page number using buttons 0 - 9.

If the top of the page indicates that sub pages are being transmitted yet the page does not change, then the number at the top of the page is there to indicate that the broadcaster has updated the page's contents, there are no sub pages.

Press  followed by the **Blue** button; T*** will be displayed at the top right of the screen.

Enter desired sub page number before the T*** disappears. To select page 6 enter 0, 0, 0 and 6.



(If in List mode, a 'T' will appear in the current box at the bottom).

Press the Yellow button to view a normal TV programme.

(Press , **Yellow** in List mode).

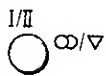
When the page is available, press the **Yellow** button to view the page.

To clear the page perform one of the following:

- Press .
- Select a new page number.
- Press  to return to normal TV operation.

Advanced Remote Control Operation

Stereo Bilingual Sound Selection



When you receive the stereo/bilingual sound system, sound output modes can be selected by pressing the stereo/bilingual sound selection button.

Audio Signal	STEREO	MAIN I	SUB II	MONO
Mode Indicator		I	II	

NICAMused in New Zealand, Singapore and Hong Kong

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator	I		

A2(German)used in Australia, Malaysia, Thailand, Indonesia etc.

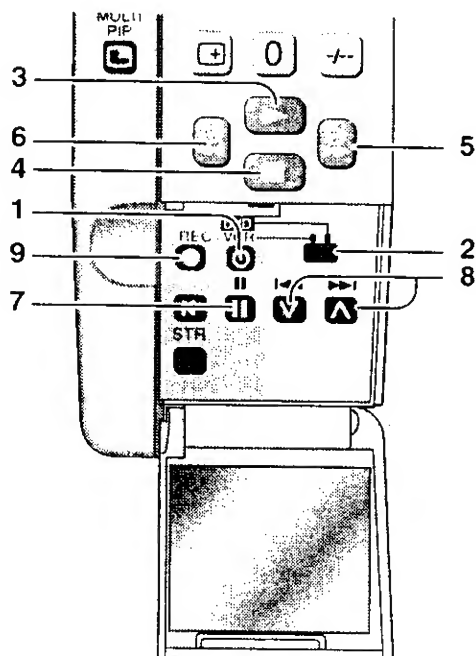
Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator	I II	

Notes:

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the "MONO" position, using the stereo/bilingual sound selection button.
- "DUAL", also known as "DUAL MONO" or as "BILINGUAL" is not currently transmitted in some countries.

VCR / DVD Control

The Remote Control is capable of operating some functions of selected VCRs and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions. So to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.

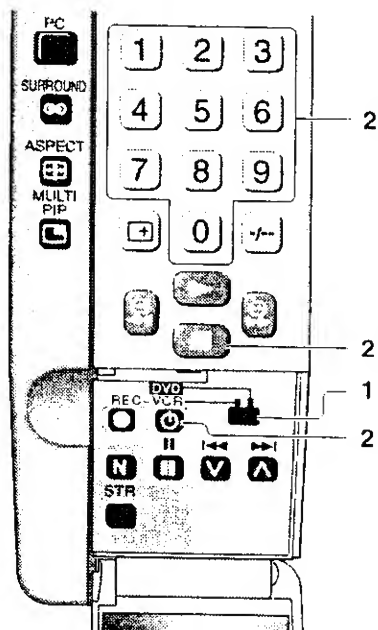


Button	Function
1	Standby
2	VCR / DVD selection switch
3	Play
4	Stop
5	Fast Forward / Cue
6	Rewind / Review
7	Pause / Still
8	VCR : Programme number Up / Down DVD : Skip
9	Record


Advanced Remote Control Operation

Manufacturer setting

Remote Control Operation is possible for the VCR's and DVD's of the various manufacturers.
After completion of setting, execute the various operations .



1  Press to select VCR / DVD.

2  While pressing the VCR / DVD Power button, press the manufacturer code (enter the two digit code), and press the VCR / DVD Stop button.

VCR

Manufacturer	Code	Manufacturer	Code
Panasonic/ National	10.11.12.13	NEC	40.41.42.43
AIWA	15.16	ORION	45.46
FUJITSU	20	PHILIPS	50
HITACHI	25.26.27	SANYO	55.56.57.58
JVC	30.31.32	SHARP	60.61
MITSUBISHI	35.36	SONY	65.66.67
		TOSHIBA	70.71

DVD

Manufacturer	Code
Panasonic	70. 71

Note:















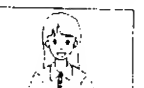

After setting, execute operation confirmation.
If there is no operation, set a different code.

Helpful Hint

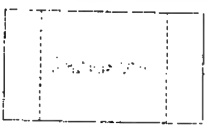
- (1) The respective VCR / DVD manufacturer code is cancelled when battery has been exchanged.
Please set it again.
- (2) Depending on the model, operation of VCR's or DVD's of the manufacturers listed above may not be possible.
- (3) In some cases, new products may not be operative.
- (4) It will not operate with other than the above manufactures.

Troubleshooting

If there is a problem with your set please refer to the table below to determine the symptoms, then carry out the suggested check. If this does not solve the problem, please contact your local Panasonic dealer, quoting the model number and serial number (both found on the rear of this TV).

Symptoms		Checks
Picture	Sound	
 Snowy Picture	 Noisy Sound	Aerial location, direction or connection
 Multiple Image	 Normal Sound	Aerial location, direction or connection
 Interference	 Noisy Sound	Electrical appliances Cars/Motorcycles Fluorescent lights
 Normal Picture	 No Sound	Volume level Sound mute switched on
 No Picture	 No Sound	This set to AV mode Not plugged into A.C. outlet Not switched on Picture / Sound controls set at minimum levels Check if in stand-by mode
 No Colour	 Normal Sound	Colour Controls set at minimum levels
 Poor or Distorted Picture	 Weak or No Sound	Retune Channel (s)
 No Colour	 Noisy Sound	Colour System/Sound System

Plasma TV panel

Symptoms	Check
Some parts of the screen do not light up	The plasma TV panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.
After-images appear 	Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. Note: The permanent after-image on the Plasma TV resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.

Notes:

- External surfaces of the unit may become hot during operation. But this is completely normal.
- See label on the base of this equipment for ratings and other information.

For your Guidance

Service

Before requesting service, please refer to the troubleshooting guide on previous page to determine the symptoms. To obtain service please contact your local Panasonic dealer quoting the model number and serial number (both are located at the rear of this TV).

Sleep Feature

If the set is not switched off when the TV station stops transmitting, it will automatically go to standby mode after 30 minutes. This function will not operate when this TV is in AV mode.

Last position Memory

Certain functions have a last position memory, i.e. the setting at the time of switch - off will be the setting used when this set is switched on again:

Programme
AV position
Volume
Status
Aspect
Standby
Picture menu
Sound menu
Setup menu

Input signal can be displayed

Applicable input signals for PC Input (D-sub 15P) (* Mark)

	Signal name	Horizontal frequency(kHz)	Vertical frequency(Hz)	PC
1	640 × 400 @ 70 Hz	31.47	70.00	*
2	640 × 480 @ 60 Hz	31.47	59.94	*
3	Macintosh13" (640 × 480)	35.00	66.67	*
4	640 × 480 @ 75 Hz	37.50	75.00	*
5	852 × 480 @ 60 Hz	31.50	60.00	*
6	800 × 600 @ 60 Hz	37.88	60.32	*
7	800 × 600 @ 75 Hz	46.88	75.00	*
8	800 × 600 @ 85 Hz	53.67	85.06	*
9	Macintosh16" (832 × 624)	49.73	74.55	*
10	1,024 × 768 @ 60 Hz	48.36	60.00	*
11	1,024 × 768 @ 70 Hz	56.48	70.07	*
12	1,024 × 768 @ 75 Hz	60.02	75.03	*
13	1,024 × 768 @ 85 Hz	68.68	85.00	*
14	Macintosh21" (1,152 × 870)	68.68	75.06	*
15	1,280 × 1,024 @ 60 Hz	63.98	60.02	*
16	1,280 × 1,024 @ 75 Hz	79.98	75.03	*
17	1,280 × 1,024 @ 85 Hz	91.15	85.02	*
18	1,600 × 1,200 @ 60 Hz	75.00	60.00	*

Note:

Signals without above specification may not be displayed properly.

Specifications

	TH-37PA20	TH-42PA20								
Power Source	220 V - 240 V 50 Hz / 60 Hz A.C.									
Power Consumption										
Normal use	243 W	313 W								
Standby		1.8 W								
Power-OFF		1.0 W								
Plasma Display panel										
Drive method	AC type									
Aspect Ratio	16:9									
Contrast Ratio	4000:1									
Screen size (No. of pixels)	37-inch 818 mm (W) × 461 mm (H) × 939 mm (diagonal)	42-inch 920 mm (W) × 518 mm (H) × 1056 mm (diagonal)								
	408.960 (852 (W) × 480 (H)) [2.556 × 480 dots]									
Sound										
Speaker	L: Woofer (40 mm) × 4 + Tweeter (35 mm) × 1 R: Woofer (40 mm) × 4 + Tweeter (35 mm) × 1									
Audio Output	16 W (8 W + 8 W) (10 %THD)									
Headphone	M3 (3.5 mm) Jack × 1									
Applicable signals										
Colour System	NTSC, PAL, PAL60, Modified NTSC									
Scanning format	525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 1125/50i, 1125/60i									
PC signals	VGA display VGA, SVGA, XGA, SXGA, UXGA (compressed) Horizontal scanning frequency 15 - 110 kHz Vertical scanning frequency 48 - 120 Hz									
Receiving System	<table><tr><td>1 PAL B G</td><td>Reception of Off air broadcasts</td></tr><tr><td>2 NTSC 4 43</td><td>Playback from Video Tape Recorders</td></tr><tr><td>3 NTSC 3 58</td><td>Playback from Special Video Tape Recorders and Special Video Disc Players</td></tr><tr><td>4 PAL 60Hz</td><td>(Via the AV Sockets) only</td></tr></table>		1 PAL B G	Reception of Off air broadcasts	2 NTSC 4 43	Playback from Video Tape Recorders	3 NTSC 3 58	Playback from Special Video Tape Recorders and Special Video Disc Players	4 PAL 60Hz	(Via the AV Sockets) only
1 PAL B G	Reception of Off air broadcasts									
2 NTSC 4 43	Playback from Video Tape Recorders									
3 NTSC 3 58	Playback from Special Video Tape Recorders and Special Video Disc Players									
4 PAL 60Hz	(Via the AV Sockets) only									
RF Channels	VHF 0 to 12 PAL B UHF 21 to 69 PAL G S'1 to S'3 HYPER TUNER S1 to S41									
OUTPUT										
AUDIO OUT	AUDIO L-R (RCA Pin Type × 2)	0.5 Vrms								
VIDEO OUT	VIDEO (RCA Pin Type)	1.0 Vp-p (75 Ω)								
INPUT										
AV1-Rear	VIDEO (RCA Pin Type) S-VIDEO (MINI DIN 4-pin) AUDIO L-R (RCA Pin Type × 2)	1.0 Vp-p (75 Ω) Y:1.0 Vp-p (75 Ω) C:0.286 Vp-p (75 Ω) 0.5 Vrms								
AV2-Rear	VIDEO (RCA Pin Type) AUDIO L-R (RCA Pin Type × 2) Y PB/PF	1.0 Vp-p (75 Ω) 0.5 Vrms 1.0 Vp-p (including synchronization) ±0.35 Vp-p								
AV3-Front	VIDEO (RCA Pin Type) S-VIDEO (MINI DIN 4-pin) AUDIO L-R (RCA Pin Type × 2)	1.0 Vp-p (75 Ω) Y:1.0 Vp-p (75 Ω) C:0.286 Vp-p (75 Ω) 0.5 Vrms								
AV4-Rear	VIDEO (RCA Pin Type) AUDIO L-R (RCA Pin Type × 2) Y PB/PF	1.0 Vp-p (75 Ω) 0.5 Vrms 1.0 Vp-p (including synchronization) ±0.35 Vp-p								
PC	(HIGH-DENSITY D-SUB 15PIN) AUDIO L-R (RCA Pin Type)	R,G,B:0.7 Vp-p (75-ohm) HD, VD:1.0 - 5.0 Vp-p (high impedance) 0.5 Vrms (high impedance)								
ANT-Rear	UHF/VHF									
Operating Conditions	Temperature : 0 - 40 °C Humidity : 20 % - 80 % RH (non-condensing)									
Accessories Supplied										
Remote Control Transmitter	EUR511281									
Batteries	2 × R6 Size									
Fixing band	(TMME203 or TMME 187) × 1									
Ferrite core	Large size × 3, Small size × 5									
Dimensions (W × H × D)	1070 mm × 596 mm × 99 mm	1170 mm × 658 mm × 99 mm								
Mass (Weight)	29.5 kg	35.0 kg								

Note:
Design and specifications are subject to change without notice. Mass and dimensions shown are approximate.

**Customer's Record**

The model number and serial number of this product can be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number _____

Serial Number _____

Matsushita Electric Industrial Co., Ltd.Web Site : <http://www.panasonic.co.jp/global/>